

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Previously Presented) An articulation segment of a catheter for selectively bending the catheter in a plurality of planes, the articulation segment comprising: a hollow tube having a wall and defining a longitudinal axis, the tube being formed with first slit portions through the wall, with each first slit portion lying in a plane substantially perpendicular to the axis and extending azimuthally in an arc partway around the axis for an arc length greater than one hundred and eighty degrees; with the tube including first non-slit portions, with each first non-slit portion being coplanar with and bounded by a respective first slit portion; the tube being further formed with second slit portions through the wall, with each second slit portion lying in a plane substantially perpendicular to the axis and extending azimuthally in an arc partway around the axis for an arc length greater than one hundred and eighty degrees; with the tube including second non-slit portions, with each second non-slit portion being coplanar with and bounded by a respective second slit portion; wherein the first slit portions are axially and azimuthally offset from the second slit portions; wherein the first non-slit portions are aligned along the axis to form a first axially-extending wall portion interrupted only by the second slit portions; and wherein the second non-slit portions are aligned along the axis to form a second axially-extending wall portion interrupted only by the first slit portions to allow for the selective bending of the catheter.

2. (Previously Presented) An articulation segment as recited in claim 1 wherein the first slit portions and the second slit portions alternate axially along the tube.

3. (Previously Presented) An articulation segment as recited in claim 1 wherein each first slit portion has a first end and a second end that bound the respective first non-slit portion; and wherein each second slit portion has a first end and a second end that bound the respective non-slit portion.

4. (Previously Presented) An articulation segment as recited in claim 3 with each first slit portion and each second slit portion having a substantially same arc length.

5. (Previously Presented) An articulation segment as recited in claim 4 wherein the respective ends of the first slit portions and the second slit portions overlap through an arc distance of approximately ten degrees.

Claims 6 and 7 (Canceled)

8. (Original) An articulation segment as recited in claim 2 wherein each slit has a width in a range of approximately ten to five hundred microns.

9. (Original) An articulation segment as recited in claim 1 wherein the tube is a hypotube made of stainless steel.

Claims 10-15 (Canceled)

16. (Withdrawn) A method for manufacturing an articulation segment for a catheter to allow for a selective bending of the catheter in a plurality of planes, the method comprising the steps of:

providing a hollow tube having a wall and defining a longitudinal axis;

orienting a laser system to cut a plurality of first slits into the tube through the wall with the first slits lying in respective planes substantially perpendicular to the axis and with each first slit having a same azimuthal orientation and extending in an arc partway around the axis and having a center aligned with the centers of other first slits along a first line substantially parallel to the axis; and

using the system to cut a plurality of second slits into the tube through the wall with the second slits lying in respective planes substantially perpendicular to the axis and with each second slit having a same azimuthal orientation and extending in an arc partway around the axis and having a center aligned with the centers of other second slits along a second line substantially parallel to the axis, wherein slits in the plurality of first slits are axially offset from slits in the plurality of second slits, and wherein the first line is azimuthally offset from the second slit line to allow for the selective bending of the catheter.

17. (Withdrawn) A method as recited in claim 16 wherein each first slit has a first end and a second end; wherein each second slit has a first end and a second end; and wherein the first end of the first slit is juxtaposed and overlaps with the second end of an adjacent second slit, and the second end of the first slit is juxtaposed and overlaps with the first end of an adjacent second slit.

18. (Withdrawn) A method as recited in claim 17 with each first slit and each second slit having a substantially same arc length, wherein the arc length is greater than one hundred and eighty degrees and wherein the respective ends of the first slits and the second slits overlap through an arc distance of approximately ten degrees.

19. (Withdrawn) A method as recited in claim 16 further comprising the steps of:

orienting the system to cut a plurality of third slits into the tube with the third slits being coplanar with the first slits, and with each third slit extending azimuthally in an arc partway around the axis and having a center aligned with the centers of other third slits along a third line substantially parallel to the axis; and

using the system to cut a plurality of fourth slits into the tube with the fourth slits being coplanar with the second slits, and with each fourth slit extending azimuthally in an arc partway around the axis and having a center aligned with the centers of other fourth slits along a fourth line substantially parallel to the axis, wherein the third line is diametrically opposed to the first line and the fourth line is diametrically opposed to the second line to allow for the selective bending of the catheter.

20. (Withdrawn) A method as recited in claim 19 wherein each slit has a substantially same arc length greater than ninety degrees and less than one hundred and eighty degrees and has a width in a range of approximately ten to five hundred microns.

21. (Previously Presented) An articulation segment as recited in claim 1 wherein the first axially-extending wall portion is offset from the second axially-extending wall portion by approximately 180 degrees to define a plurality of radial planes that pass through the longitudinal axis and the first and second axially-extending wall portions, and to bias the catheter to bend in the radial planes.

22. (Previously Presented) An articulation segment as recited in claim 1 wherein each non-slit portion extends for an arc length of about 170 degrees.

23. (Previously Presented) An articulation segment of a catheter for selectively bending the catheter in two planes, the articulation segment comprising:

a hollow tube having a wall and defining a longitudinal axis;

wherein the tube forms a plurality of alternating first slits and second slits, with each slit extending radially through the wall and azimuthally in an arc partway around the axis from a first end to a second end for an arc length greater than one hundred and eighty degrees, and with each slit lying in a plane substantially perpendicular to the axis;

wherein the first slits are aligned along the axis in a same azimuthal orientation relative to each other with the first ends and second ends of the first slits defining a first axially-extending wall portion interrupted only by the second slits;

wherein the second slits are aligned along the axis in a same azimuthal orientation relative to each other and azimuthally offset from the first slits, with the first ends and second ends of the second slits defining a second axially-extending wall portion interrupted only by the first slits; and

wherein the first axially-extending wall portion is offset from the second axially-extending wall portion by approximately 180 degrees to define a plurality of radial planes that pass through the longitudinal axis and the first and second axially-extending wall portions, and to bias the catheter to bend in the radial planes.



24. (Previously Presented) An articulation segment as recited in claim 23 wherein the first ends of the first slits overlap with the second ends of the second slits through an arc distance of approximately ten degrees.

25. (Previously Presented) An articulation segment as recited in claim 24 wherein the second ends of the first slits overlap with the first ends of the second slits through an arc distance of approximately ten degrees.

26. (Previously Presented) An articulation segment as recited in claim 23 wherein each slit has a substantially same arc length.

27. (Previously Presented) An articulation segment as recited in claim 26 wherein each slit has a width in a range of approximately ten to five hundred microns.

28. (Previously Presented) An articulation segment as recited in claim 23 wherein the tube is a hypotube made of stainless steel.